

Fig. 1

FIG. 2

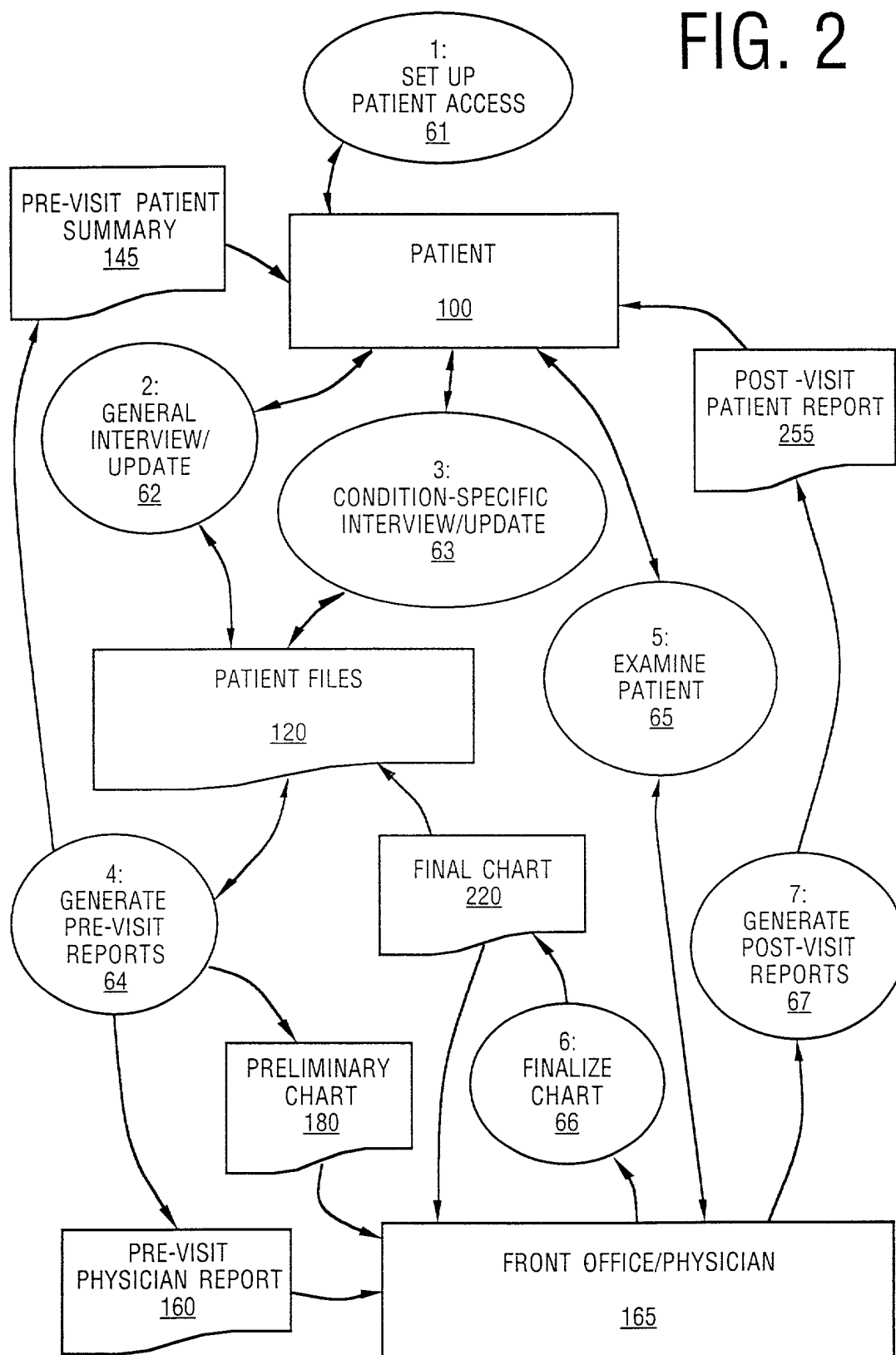


FIG. 3

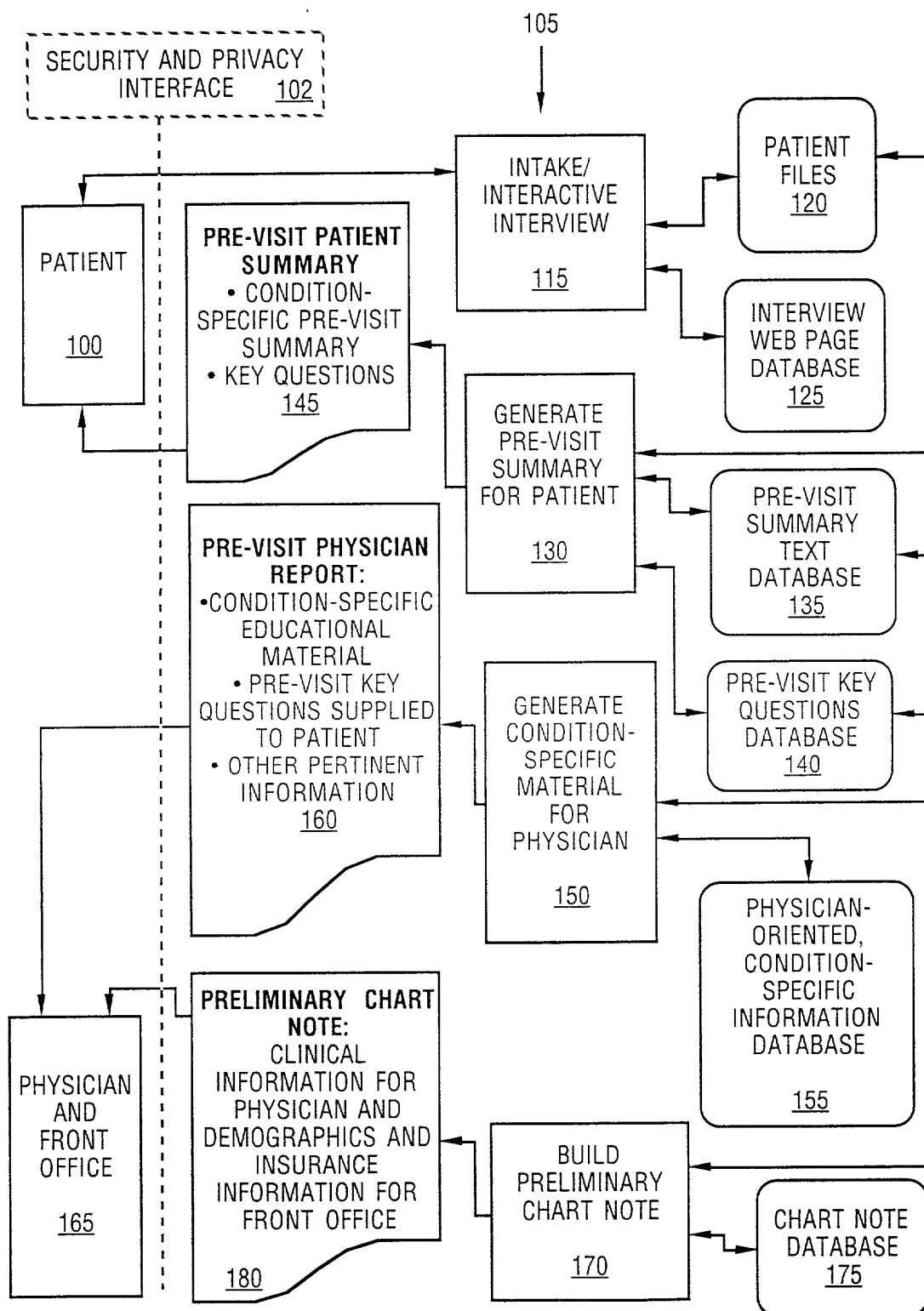


FIG. 4

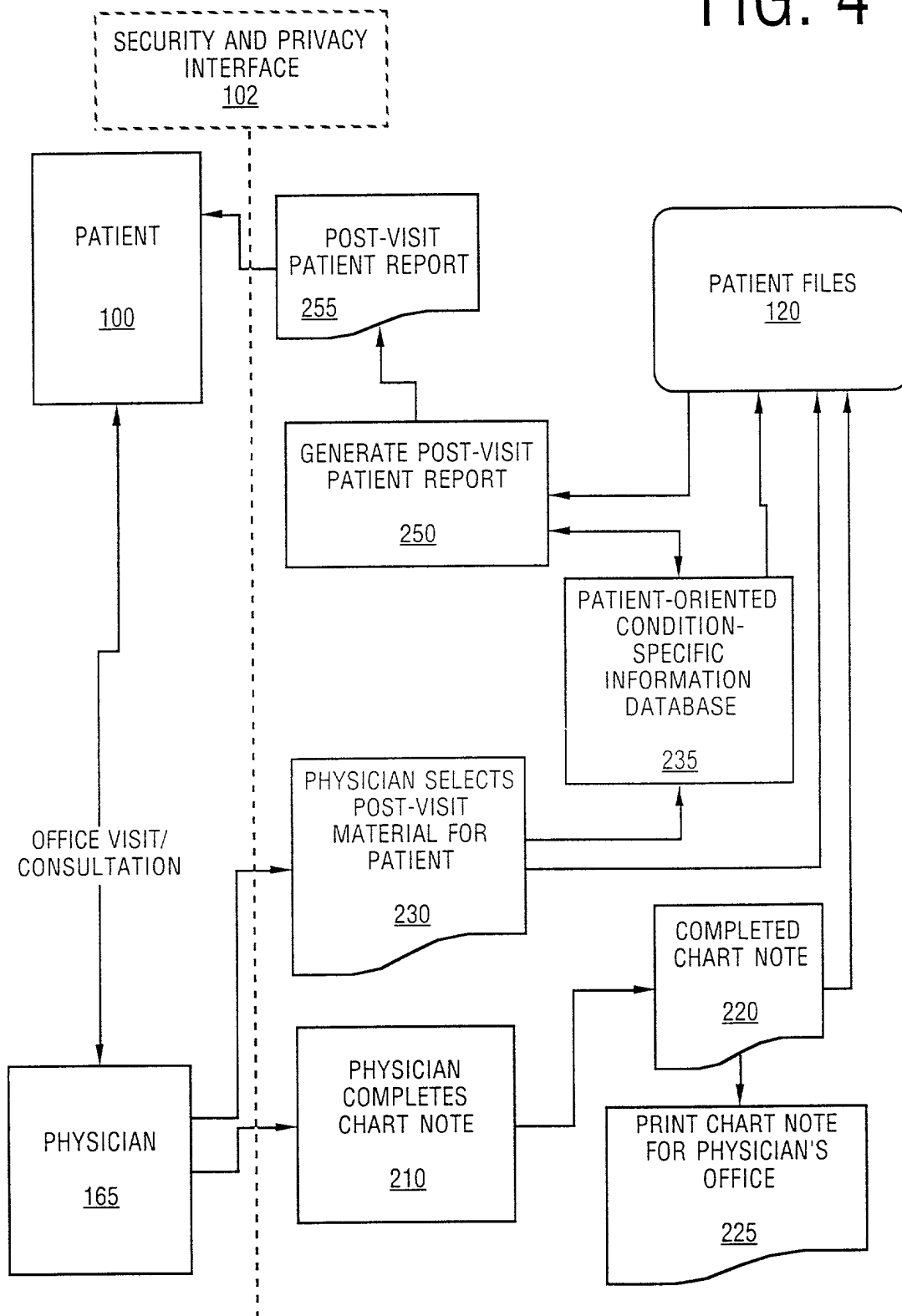
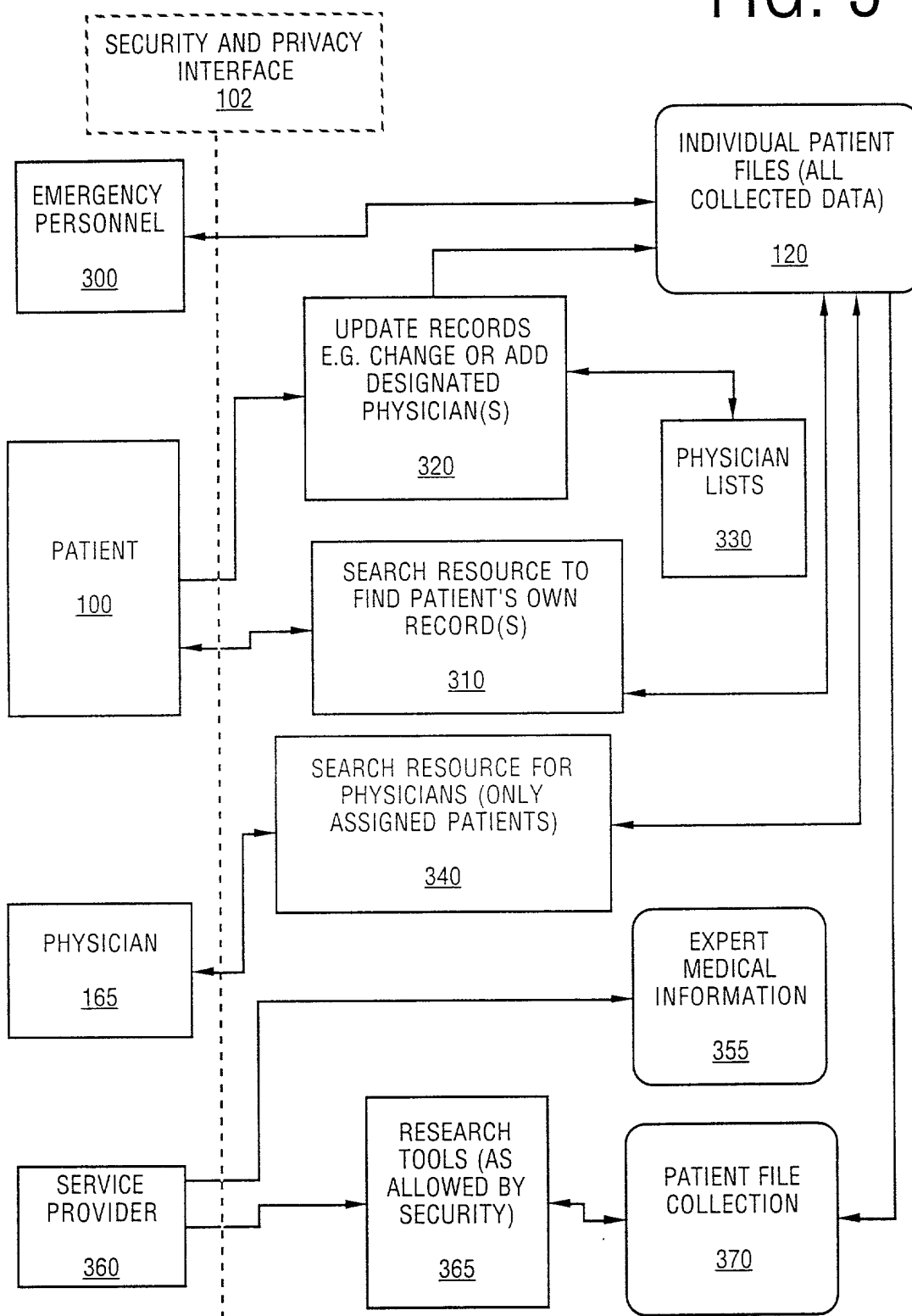


FIG. 5



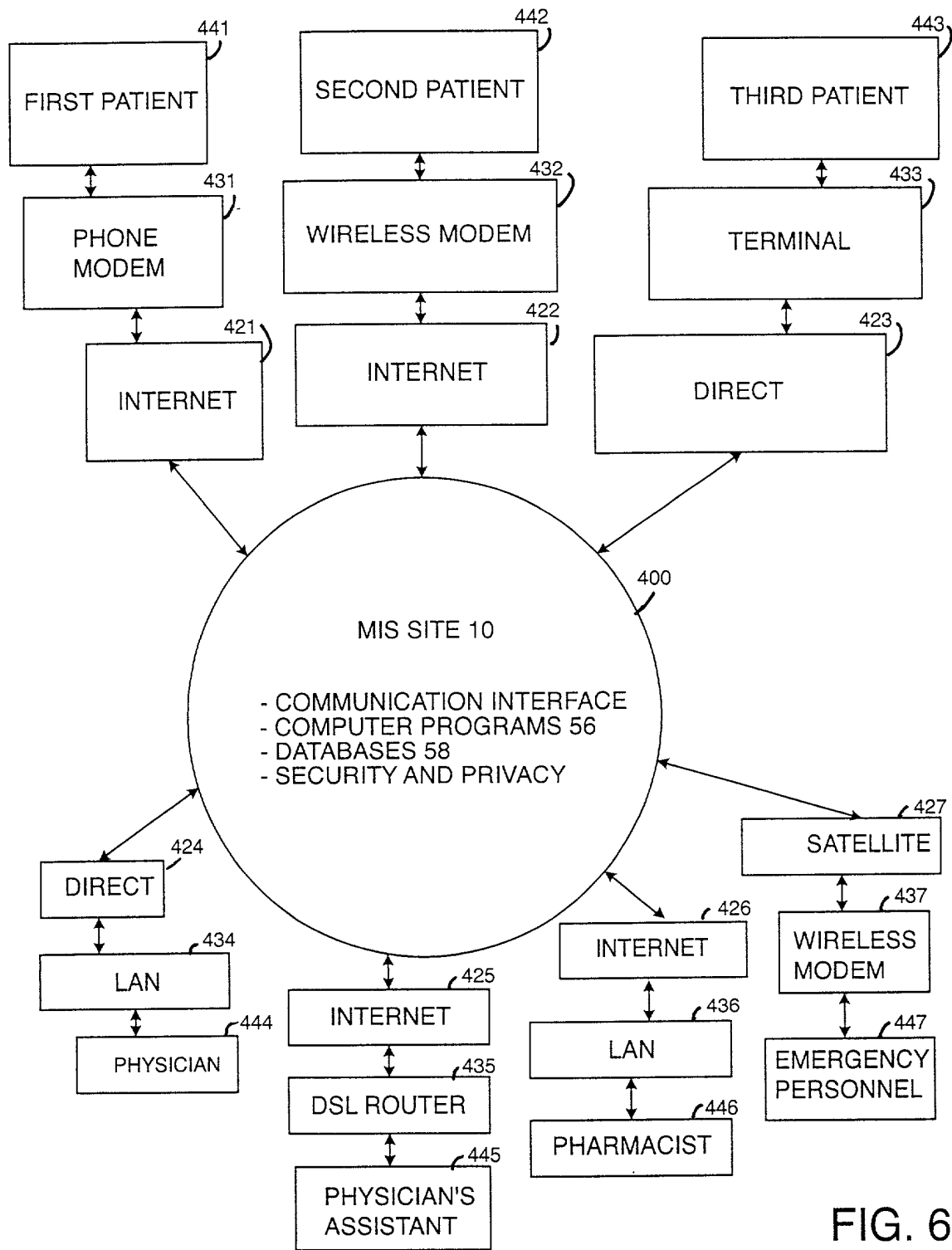


FIG. 6

Patient:
Mary Stuart

Demographic
Insurance
Health History
Body Systems
Health Status

Help

Profile • Demographic

This form allows you to enter personal demographic information needed by your doctor and the medical office.

Personal Information

Name

Mary Stuart

Short / Nick Name

Mary

Date of Birth

03/17/1940

Gender

☒ Female ☐ Male

Marital Status

☐ Single ☒ Married

SSN

111-11-1111

Handedness

☐ Left ☒ Right

Height

5 Feet 4 Inches

Weight

130 lbs.

Occupation

Artist

FIG. 7A

Contact Information

Home Phone

(415) 555-4343

Work Phone

(650) 555-4534

Emergency Contact Information

Name

James Stuart

Relationship

☒ Spouse ☐ Parent ☐ Child ☐ Sibling ☐ Friend

Street

1565 Linlithgow

Apartment Number

34

City

San Francisco

ZIP Code

94110

Home Phone

(415) 555-4343

Work Phone

(650) 555-4534

Submit

Submit

Reset

FIG. 7C

Clinical Interactions • Patient • Naxos Orthopedic Center

[Logoff](#) | [My Condition](#) | [Profile](#) | [Message Center](#) | [Medical Office](#)

Patient:
Mary Stuart

Demographic
Insurance
Health History
Body Systems
Health Status

Help

Profile • Health History

This is the first of two forms that collect information about your current and past health in a standard format exactly as if you were in your doctors's office. This form focuses on your past medical history. The next form reviews your body systems such as head, heart and lungs.

Allergies

- Do you have any known drug or environmental allergies?

☒ Yes ☐ No

If you answered no you can go directly to the [Medical Conditions](#) section.

- Are you allergic to any of the following:

- ☒ Penicillin
- ☐ Sulfa
- ☐ Any other antibiotics
- ☐ Aspirin
- ☐ Any other anti-inflammatory medicines
- ☐ Any pain medications
- ☐ Diuretics (water pills)
- ☐ Shellfish
- ☐ Nuts
- ☐ Any other foods
- ☐ Bee stings
- ☐ Dust
- ☒ Pollen or other hay fever
- ☐ Any other environmental allergies

- If you have any other drug or environmental allergies enter their names below:

	First allergy
	Second allergy
	Third allergy

Medical Conditions

- Do you have now or have you ever had any of the following conditions?

☒ Hypertension (high blood pressure)

FIG. 8A

- ☐ Angina
- ☐ Heart disease
- ☐ Heart attack
- ☐ Stroke
- ☐ Diabetes
- ☐ Pneumonia
- ☐ Asthma
- ☐ COPD (chronic bronchitis or emphysema)
- ☐ Bleeding disorder
- ☐ Peptic ulcers (stomach or duodenal ulcer)
- ☐ Kidney disease
- ☐ Hepatitis
- ☐ HIV
- ☐ Cancer
- ☒ Arthritis
- ☒ Thyroid disease
- ☐ None of the above and no other medical problems

• If you have any medical conditions not listed above enter their names below

First condition

Second condition

Third condition

Current Medications

• Do you take any of the following general types of medications?

- ☒ Blood pressure medication
- ☐ Heart medication
- ☐ Heart disease
- ☐ Aspirin
- ☐ Blood thinner such as coumadin
- ☒ Arthritis medication
- ☐ Antibiotic
- ☐ Inhalers
- ☐ Ulcer medication
- ☐ Hormone
- ☐ Osteoporosis medication
- ☐ Prednisone or other steroid medication
- ☒ Thyroid medication
- ☐ Pain medication
- ☐ Anti-depressant medication

FIG. 8B

- ☐ Multivitamins
- ☐ Any other supplements
- ☐ Any other over-the-counter medications
- ☐ No medication

• Enter the actual medications that you take below. Copy the name accurately from the medication bottle or your medication list including the dose and frequency.

Cardizem SR 120 mg po	First medication
Motrin 600 mg 3 times a day	Second medication
Synthroid 0.15 mcg once daily	Third medication
	Fourth medication
	Fifth medication

Surgical Procedures

• Have you ever had any of the following surgical procedures? You should also enter the age you were at the time of the procedure.

Surgical procedure	Age in years
<input type="checkbox"/> Appendectomy	
<input type="checkbox"/> Gall bladder surgery	
<input type="checkbox"/> Hernia repair	
<input checked="" type="checkbox"/> Tonsillectomy	10
<input type="checkbox"/> Heart surgery	
<input type="checkbox"/> Joint replacement surgery	
<input type="checkbox"/> Spine surgery	
<input type="checkbox"/> Any upper-extremity surgery (shoulder, arm, elbow, wrist, or hand)	
<input type="checkbox"/> Any lower-extremity surgery (hip, leg, ankle, or foot)	
<input checked="" type="checkbox"/> Breast biopsy	45
<input type="checkbox"/> Hysterectomy	
<input type="checkbox"/> Prostate surgery	
<input type="checkbox"/> No surgical procedures	

• If you have any surgical procedures not listed above enter their names below

Other surgical procedures	Age in years

F16.8C

OB GYN For Adult Women

• How many children have you had?

3 children

• Have you ever had a C-section?

☐ Yes ☒ No

Family History

• Have any of your family members (blood relatives, living or deceased) ever had any of the following conditions? You should also select the relationship.

- ☒ Heart disease
- ☒ Hypertension
- ☐ Stroke
- ☐ Diabetes
- ☐ Thyroid disorder
- ☒ Cancer
- ☐ Tuberculosis
- ☐ Hepatitis
- ☐ Alzheimer's disease
- ☐ Bleeding disorders
- ☐ No diseases in the family
- ☐ Don't know family history

• If there are other diseases or conditions that run in your family enter their names below and the relationship to you of the person that had the disease or condition.

Other family condition Relationship to you

Social History

• What is your marital status?

☐ Single ☒ Married

FIG. 8D

Single Married

- Which of the following best describes your living situation?
 - ☐ I live alone
 - ☒ I live with my family
 - ☐ I live with friends
 - ☐ I live in a structured setting with help (such as board and care, retirement home, care facility)
- What is your smoking history?
 - ☒ I have never smoked
 - ☐ I used to smoke
 - ☐ I currently smoke
 - pack(s) a day for year(s).
- What is your alcohol intake?
 - ☒ I do not drink alcohol
 - ☐ I drink every day
 - ☐ I drink once a week
 - ☐ I drink once a month

Submit

FIG. 8E

Clinical Interactions • Patient • Naxos Orthopedic Center

Logoff | My Condition | Profile | Message Center | Medical Office

Patient:
Mary Stuart

Demographic
Insurance
Health History
Body Systems
Health Status

Help

Profile • Body Systems

This is the second of two forms that collect information about your current and past health in a standard format exactly as if you were in your doctors's office. This form reviews your body systems such as head, heart and lungs. The previous form focuses on your past medical history.

Skin

• Do you have any of the following?

- ☐ Rash
- ☐ New skin spots
- ☐ Skin infections
- ☐ Change in any moles
- ☐ Non-healing sores
- ☐ Itching

Head And Nervous System

• Do you have any of the following?

- ☐ Recent severe headaches
- ☐ Head trauma
- ☐ Blackouts / fainting spells
- ☐ Convulsions /seizure
- ☒ Dizziness
- ☐ Numbness in arms or legs
- ☐ Weakness in arms or legs
- ☐ Coordination problems of arms or legs
- ☐ Difficulty with speech
- ☐ Memory loss
- ☒ Difficulty sleeping

Eyes, Ears, Nose And Throat

• Do you have any of the following?

- ☐ Blurred vision
- ☐ Double vision
- ☐ Hoarseness
- ☐ Nose bleeds
- ☐ Sinus pain

FIG. 9A

- ☐ Hearing loss
- ☐ Ringing in the ears or tinnitus
- ☐ Ear infections
- ☐ Ear pain
- ☐ Ear drainage
- ☐ Facial pain
- ☐ Facial paralysis
- ☐ Sore throat
- ☐ Snoring
- ☐ Difficulty swallowing
- ☐ Jaw pain (TMJ pain)
- ☐ Tooth pain, infected teeth
- ☐ Non - healing sores in mouth
- ☐ Swollen lymph nodes
- ☐ New lumps

Heart, Lungs And Circulation

- Do you have any of the following?
 - ☐ Shortness of breath with exercise
 - ☐ Shortness of breath at rest
 - ☐ Wheezing
 - ☐ Frequent or persistent cough
 - ☐ Coughing up green sputum
 - ☐ Coughing up blood
 - ☐ Swollen legs
 - ☐ Chest pain
 - ☐ Palpitations or racing of heart beat
 - ☐ Poor circulation

Gastrointestinal

- Do you have any of the following?
 - ☒ Indigestion / heartburn
 - ☐ Abdominal pain
 - ☐ Cramps
 - ☐ Nausea
 - ☐ Vomiting
 - ☐ Diarrhea
 - ☐ Change in bowel habits
 - ☐ Bloody or black bowel movements
 - ☐ Jaundice / yellow skin

F16.9B

Kidney And Bladder

Kidney And Bladder

- Do you have any of the following?
 - ☐ Pain or burning with urination
 - ☐ Loss of bladder control
 - ☐ Urinary retention / inability to void
 - ☒ Need to urinate more than once at night
 - ☐ Blood in urine

Hematopoetic

- Do you have any of the following?
 - ☐ Excessive bleeding when cut
 - ☐ Excessive or easy bruising
 - ☐ Swollen glands in armpits, groin, or neck

Musculoskeletal

- Do you have any of the following?
 - ☒ Joint pain
 - ☒ Joint swelling
 - ☐ Joint instability
 - ☐ Back pain
 - ☐ Neck pain
 - ☐ Muscle pains
 - ☒ Bone pain

General Symptoms

- Do you have any of the following?
 - ☐ Easily or chronically fatigued
 - ☐ Unexplained weight loss
 - ☐ Night sweats
 - ☐ Fever
 - ☐ Depression
 - ☐ Anxiety

Submit**Submit****Reset**

FIG. 9C

Patient:
James Stuart

Next Visit

Hip Pain

- Asthma

Summary
Education

Help

My Condition • Asthma Interview

This form collects information about your asthma condition. Your physician uses this information to prepare for your visit. You can then collaborate during your visit to get the best possible medical outcome for your asthma condition.

Onset, Duration And Frequency

- How long have you had asthma?

days
 weeks
 months
 years

- How old were you when you were diagnosed with asthma?

years old

Symptoms

- Do you have any of the following symptoms?

☐ Shortness of breath at rest during the day
☐ Shortness of breath at night
☐ Shortness of breath with exercise
☐ Wheezing
☐ Chronic cough
☐ Cough after exercise
☐ None of the above

- If you suffer shortness of breath at rest during the day, how often?

☐ Daily
☐ More than 3 times weekly
☐ At least once a week
☐ Occasionally

- If you suffer shortness of breath at night, how often?

☐ Daily
☐ More than 3 times weekly

FIG. 10A

☐ At least once a week

☐ Occasionally

- If you suffer shortness of breath with exercise, how often?

☐ Daily

☐ More than 3 times weekly

☐ At least once a week

☐ Occasionally

- Does your asthma wake you up at night from a sound sleep?

☐ Yes ☐ No

- Which of the following activities would cause you to get short of breath or feel your asthma?

☐ Going up two flights of stairs

☐ Walking one mile

☐ Walking two city blocks

☐ Swimming 100 yards

☐ Running or jogging one mile

☐ Riding a bike or exercise bike for ten minutes

- If there are other activities that trigger your asthma enter their names below:

First activity

Second activity

Associated Conditions

- In addition to your asthma do you have or have you ever had any of the following conditions?

☐ Chronic bronchitis

☐ Emphyzema

☐ Pneumonia

☐ Sinusitis

☐ Nasal polyps

☐ Aspirin allergy

☐ Any other allergies including hay fever and environmental

☐ None of the above

Previous Diagnostic Studies

- Which of the following diagnostic tests have you had for your asthma?

FIG. 10B

- ☐ Chest X-Ray
- ☐ Pulmonary function tests
- ☐ Skin tests
- ☐ Blood tests

Previous Non-Operative Care For This Condition

- Which of the following treatments have you had in the past for your asthma?

- ☐ Over the counter inhalers (such as Primatene mist)
- ☐ Prescribed bronchodilator inhalers
- ☐ Prescribed steroid inhalers
- ☐ Prescribed oral steroid medication such as prednisone
- ☐ Any other prescribed oral asthma medications (such as theophylline)
- ☐ Home nebulizer treatments
- ☐ Allergy shots
- ☐ Allergy medications
- ☐ Other therapy not listed above

- If you have had other therapies not listed above, enter their names below:

First therapy
 Second therapy

Current Treatment

- Which of the following treatments are you having now for your asthma?

- ☐ Over the counter inhalers (such as Primatene mist)
- ☐ Prescribed bronchodilator inhalers
- ☐ Prescribed steroid inhalers
- ☐ Prescribed oral steroid medication such as prednisone
- ☐ Any other prescribed oral asthma medications (such as theophylline)
- ☐ Home nebulizer treatments
- ☐ Allergy shots
- ☐ Allergy medications
- ☐ Other therapy not listed above

- If you have are now having other therapies not listed above, enter their names below:

First therapy
 Second therapy

FIG. 10C

2007-03-09 10:00

Other Questions

- Do colds or upper respiratory infections last longer than in others, or produce a bad cough?

☐ Yes ☐ No

- How often have you been treated in the emergency room for your asthma?

☐ Never
☐ Once
☐ Twice
☐ Three times
☐ Four times
☐ Five times
☐ Six to ten times
☐ More than ten times

- Have you needed to be treated for your asthma in the emergency room during the last year?

☐ Yes ☐ No

- If you have been treated for your asthma in the emergency room during the last year, how many times?

times

- Have you ever been hospitalized for your asthma?

☐ Yes ☐ No

- If you have ever been hospitalized for your asthma, how many times?

times

- Have you been hospitalized for your asthma in the last year?

☐ Yes ☐ No

Submit

FIG. 10D

Clinical Interactions •

Registration

• Naxos Orthopedic Center

Logoff | Registration

Patient:

Mary Stuart

Start

Help

Registration • Help

The purpose of the Registration section of the website is to allow you to provide baseline medical and administrative information that will simplify future visits to your doctor. You would usually provide much of this information while sitting in the waiting room before an office visit. Among the many benefits of providing the data online are that it will be easier for you to amend it in future and for your doctor to access it.

You complete the registration process by filling out the following questionnaires:

1. **Demographic** - routine demographic information
2. **Insurance** - details of your insurance coverage
3. **Health History** - covers health problems you have had in the past
4. **Body Systems** - covers medical problems in various parts of your body
5. **Health Status** - covers your current health status

You will be guided through these questionnaires in sequence and will have an opportunity to make corrections once you have completed the process. You begin the registration process by pressing Start in the menu bar on the left of the page. You continue by pressing the Next link in the menu bar on the left of each page. You can also go back to review and amend your responses by pressing the Previous link in the menu bar on the left of the page.

Once you complete the registration process you will be taken to the My Condition section of the website where you will be able to complete condition-specific questionnaires that will help your doctor provide you with appropriate information during and after your next office visit.

You will not need to complete these questionnaires each time you visit the site although you will be reminded to enter changes in your demographic and insurance information. Once a year you will be asked to complete a Health Status survey and verify that there are no changes in your Health History and Body Systems. These questionnaires are located in the Profile section of the website.

F16.11

Clinical Interactions • Patient • Naxos Orthopedic Center

Logoff | My Condition | Profile | Message Center | Medical Office

Patient:

Mary Stuart

Demographic

Insurance

Health History

Body Systems

Health Status

Help

Profile • Help

The purpose of the Profile section of the website is to allow you to view and edit information you have provided in the past to the Clinical Interactions website.

You should periodically review and amend the information contained in the following pages:

- Demographic - routine demographic information
- Insurance - details of your insurance coverage

You will be prompted annually to review and amend the information contained in the following pages:

- Health History - covers health problems you have had in the past
- Body Systems - covers medical problems in various parts of your body

You should amend the Current Medications section of the Health History page whenever you change your medication regime.

You will be prompted annually to complete the following survey:

- Health Status - covers your current health status

The Health Status page contains a summary of the data you provide and not the actual responses you made.

You will find these links placed in order on the menu bar on the left of every page.

FIG. 12

Clinical Interactions • Office • Naxos Orthopedic Center

Logout | Patient | Physician | System

User:
lan@naxosNew
List
Roster
Help**Physician • Roster • Wednesday April 23, 2000**

This page contains the daily roster of patients for the Naxos Orthopedic Center. You can view the roster for another date using the roster calendar.

Aristophanes, Lydia

Time	Patient	Problem	Location	Edit
9.00	Stuart, James	Knee pain	Naxos	
9.30	Hume, David	Hip pain	Naxos	
10.00	Smith, Adam	Knee pain	Naxos	
10.30	Simpson, James	Impingement	Naxos	
11.00	Muir, John	Knee pain	Naxos	

Euripides, Alexander

Time	Patient	Problem	Location	Edit
9.00	Mulligan, Buck	Knee pain	Corinth	
9.30	Dedalus, Stephen	Hip pain	Corinth	
10.00	Bloom, Leopold	Knee pain	Corinth	
10.30	Boylan, Blazes	Impingement	Corinth	
11.00	Macdowall, Gerty	Knee pain	Corinth	

Sophocles, George

Time	Patient	Problem	Location	Edit
9.00	Smith, Winston	Knee pain	Naxos	
9.30	Bowling, George	Hip pain	Naxos	
10.00	Comstock, Gordon	Knee pain	Naxos	
10.30	Hare, Dorothy	Impingement	Naxos	
11.00	Flory, James	Knee pain	Naxos	

F16.13

13

Clinical Interactions •

Office

• Naxos Orthopedic Center

Logoff | Patient | Physician | System

User:
Ian Curtis

New
List
Roster

Help

Physician • List

This page contains a list of all the physicians affiliated with the Naxos Orthopedic Center. You can view physician lists ordered by:

- [Name](#)
- [Location](#)
- [Specialty](#)

Physician List Ordered By Name

Physician	Specialty	Location	Telephone
Aristophanes, Lydia	Orthopedic surgery	Naxos	555 3312
Euripides, Alexander	Orthopedic surgery	Ithaca	555 8816
Sophocles, George	Orthopedic surgery	Naxos	555 3317

Physician List Ordered By Location

Physician	Specialty	Location	Telephone
Euripides, Alexander	Orthopedic surgery	Ithaca	555 8816
Aristophanes, Lydia	Orthopedic surgery	Naxos	555 3312
Sophocles, George	Orthopedic surgery	Naxos	555 3317

Physician List Ordered By Specialty

Physician	Specialty	Location	Telephone
Aristophanes, Lydia	Orthopedic surgery	Naxos	555 3312
Euripides, Alexander	Orthopedic surgery	Ithaca	555 8816
Sophocles, George	Orthopedic surgery	Naxos	555 3317

F16.14

User:
Ian Curtis

New
List
Roster

Help

Physician • New

This page allows you to authorize one of your physicians to access the Clinical Interactions website.

Once you complete and submit the form you should ask the physician to do the following to complete the registration process:

- 1. Go to www.ClinicalInteractions.com
- 2. Register using the unique validation code: **PLU43M**
- 3. Verify that the the profile is correct.

Personal Information

Name

First:

Last:

Street

City

ZIP Code

Phone

Fax

FIG. 15A

Board Certifications

Orthopedic Surgery

Hospital Affiliations

[illegible]

Health Plan Affiliations

Submit

Submit

Reset

FIG. 15B

Patient:
Mary Stuart
Next Visit
Hip Pain
Summary
Education
Help

My Condition • Summary

This information is to help you prepare for your visit to the doctor. You have filled out all the paper work needed for the visit and you will not need to fill any more out, as the office will receive all this information. You doctor will have all your history and medications, which should help the visit go smoothly.

Your information is stored securely and is seen only by your doctor and the office staff as necessary for your care. The security and privacy of your health information is important to you and us as explained during your initial registration.

Please remember that the information is not designed as treatment advice for you, it is designed to improve your office visit and understanding of the problem. After the summary you will see several questions that it seems reasonable to go over with your doctor.

Problem

Patient: Stuart, Mary
Visit Date: April 23, 2000

Problem: Hip Pain

Personal Summary

You will be seen in the office for hip pain. The questionnaire you have completed will be very helpful to your doctor. Your responses have provided some basic information regarding your hip symptoms and medical history. More specific questions about your hip pain will be asked during your visit. Your hip will be examined and x-rays may be obtained. Your doctor will discuss whether any further tests will be needed to confirm the diagnosis. Your doctor will then discuss an appropriate treatment plan based on the specific cause of your hip pain.

At your age, hip pain may have many different causes. The pain may be originating from the hip joint or from the soft tissues surrounding the hip such as capsule, ligaments, tendons, and muscles. Sometimes, the sensation of hip pain is referred from the nerve, joints, or muscles of the lower back. Your doctor will help you to differentiate the cause of the pain and select an appropriate course of treatment.

For your examination, you may be asked to change into an exam gown. It is important that your doctor be able to examine the hip front and back. You may need x-ray studies. For women, please alert your doctor if there is a chance you may be pregnant. If you have had hip or back x-rays or other

FIG. 16A

Questions For The Doctor

1. Is my hip pain coming from arthritis in the hip?
2. Is my hip pain coming from something other than my hip joint?
3. Do I need any further studies such as an x-ray, blood work, or MRI scan?
4. Are there exercises I should do?
5. Are there things I am doing that aggravate my hip condition and that I should change?

F16.16B

Clinical Interactions • Physician • Naxos Orthopedic Center

Logoff | Patient | Roster | Message Center

Physician:
Euripides

Patient

Search

Chief Complaint

Chart Note

Problem List

MD Education

Patient Education

Help

Patient • MD Education

The purpose of the MD Education page is to contain links to physician-oriented, peer-reviewed educational material specific to the needs of the current patient.

Patient

Name: Stuart, Mary

Date: April 23, 2000

Problem: Hip Pain

Information: Hip Pain - Middle Age Adult

Questions For The Physician

These questions have been given to the patient before the visit in an effort to focus the visit. As the patient is being seen for a symptom "hip pain", the questions are quite general, and may not be as important once you make a diagnosis.

1. Is my hip pain coming from arthritis in the hip?

In this age group, hip pain is often due to hip arthritis, but there are a significant number of patients with low back pain and other problems causing pain perceived by the patient as hip pain. The more the hip pain is felt in the groin or anterior thigh and is accompanied by a loss of range of motion, the more likely the pain is coming from the hip joint. Pain felt in the buttock and lateral hip or thigh region is somewhat less likely to be hip joint in origin and could be from other causes such as lumbar spine problems. Patients will often be surprised that what they feel as hip pain is really a back problem.

2. Is my hip pain coming from something other than my hip joint?

There is significant overlap in symptoms and making the diagnosis is sometimes difficult. Groin, anterior thigh pain and loss of hip motion along with x-ray changes are quite supportive of the hip being the problem. Buttock, lateral hip pain, neurological symptoms, and x-ray changes in the back are more suggestive of back problems. Often people have contributions from both.

3. Do I need any further studies such as an x-ray, blood work, or MRI scan?

This question prepares the patient for the possibility of a study being ordered. In this age group, plain x-rays of the hip are the most

FIG.17A

FIG.17A

common study needed to confirm or reject a suspicion of hip arthritis. Lumbar spine films may also be an early study with any suspicion of lumbar pathology. Depending on complains and suspicions of any other pathology, blood work, bone scans, hip aspiration, or MRI scan may all be needed. Please see work-up algorithm for hip pain.

4. Are there exercises I should do?

For most hip problems and other problems causing pain about the hip there are exercises that should help. The set of exercises that may help will be clearer when the diagnosis is made. In addition, some form of aerobic exercise can be accomplished by nearly everyone with hip problems and should be encouraged. The exact type will also depend on the actual diagnosis.

5. Are there things I am doing that aggravate my hip condition and that I should change?

This question is intended to help you address any activities that the patient is doing that seem detrimental to the hip joint such as high-impact sports or training. It gives the opportunity to suggest alternative aerobic activities such as swimming and exercise bike, which are often well tolerated by people with hip problems.

Pre-Visit Summary

You will be seen in the office for hip pain. The questionnaire you have completed will be very helpful to your doctor. Your responses have provided some basic information regarding your hip symptoms and medical history. More specific questions about your hip pain will be asked during your visit. Your hip will be examined and x-rays may be obtained. Your doctor will discuss whether any further tests will be needed to confirm the diagnosis. Your doctor will then discuss an appropriate treatment plan based on the specific cause of your hip pain.

At your age, hip pain may have many different causes. The pain may be originating from the hip joint or from the soft tissues surrounding the hip such as capsule, ligaments, tendons, and muscles. Sometimes, the sensation of hip pain is referred from the nerve, joints, or muscles of the lower back. Your doctor will help you to differentiate the cause of the pain and select an appropriate course of treatment.

For your examination, you may be asked to change into an exam gown. It is important that your doctor be able to examine the hip front and back. You may need x-ray studies. For women, please alert your doctor if there is a chance you may be pregnant. If you have had hip or back x-rays or other studies such as an MRI in the last six months, please have them sent to the doctor's office in advance of the appointment or hand carry the films at the time of your visit.

FIG. 17B

Differential Diagnoses

- 1. True Hip Joint Sources

- a. Arthritis
 - i. Osteoarthritis
 - ii. Inflammatory arthritis
 - iii. Septic arthritis
 - iv. Post-traumatic arthritis
 - v. Others
 - b. Avascular necrosis
 - c. Stress or insufficiency fracture
 - d. Trauma
 - e. Synovitis
 - i. Gout
 - ii. Pseudo-gout
 - iii. Injury / repetitive-stress induced synovitis
2. Periarticular Sources
- a. Tendonitis
 - b. Muscle or tendon strains (usually adductor tendon)
 - c. Trochanteric bursitis (often secondary to back problems)
 - d. Psoas tendon or muscle pain
 - i. Bleed (Especially if on anti-coagulants)
 - ii. Abscess
 - e. Tumor
3. Low Back Sources
- a. Lumbar disc disease
 - b. Lumbar degenerative disease (facet arthritis, etc)
 - c. Spinal stenosis
 - d. Spondylolithesis
 - e. Infection
 - f. Tumor

Work Up Algorithm

- Trauma?
 - Yes - Plain x-ray
 - Positive for fracture - Treat
 - Negative
 - High suspicion for occult fracture?
 - Yes - MRI or bone scan - urgent
 - No - Crutches, walker or cane for symptomatic relief and observation
 - No - go to routine evaluation for patient without sudden trauma
 - Routine evaluation for patient without sudden trauma
 - Symptoms suggesting hip problem (groin, anterior thigh pain, difficulty with shoes and socks, in and out of car, etc.) and hip exam normal with loss of motion, pain with motion, limp or weight-bearing pain
 - Yes
 - Plain x-ray first study
 - Positive - treat per findings
 - Normal
 - Observe
 - Further study based on degree of suspicion would be
 - Bone scan
 - MRI
 - No - the symptoms are not classic hip joint symptoms and the exam of the hip is normal

FIG. 17C

- ## References

National Guideline Clearinghouse

- FIG. 17D

Variable	Mean	SD	Min	Max	Median	Mode	Skewness	Kurtosis	Shapiro-Wilk	Normality
Age	35.2	12.5	20	65	30	30	0.15	2.5	0.95	Normal
Gender	1.2	0.4	1	2	1	1	0.05	1.5	0.98	Normal
Marital Status	2.1	0.8	1	3	2	2	0.10	2.0	0.92	Normal
Education	15.5	2.5	10	20	15	15	0.05	2.0	0.95	Normal
Income	1200	300	500	2000	1000	1000	0.10	2.5	0.90	Normal
Occupation	1.5	0.5	1	3	1	1	0.05	1.5	0.98	Normal
Health Status	2.5	0.5	1	3	2	2	0.05	1.5	0.98	Normal
Stress Level	3.5	1.0	1	5	3	3	0.10	2.0	0.92	Normal
Life Satisfaction	4.0	0.8	1	5	4	4	0.05	1.5	0.98	Normal
Resilience	3.0	0.5	1	4	3	3	0.05	1.5	0.98	Normal
Optimism	3.5	0.5	1	4	3	3	0.05	1.5	0.98	Normal
Emotional Stability	3.0	0.5	1	4	3	3	0.05	1.5	0.98	Normal
Self-Esteem	3.5	0.5	1	4	3	3	0.05	1.5	0.98	Normal
Life Satisfaction	4.0	0.8	1	5	4	4	0.05	1.5	0.98	Normal
Resilience	3.0	0.5	1	4	3	3	0.05	1.5	0.98	Normal
Optimism	3.5	0.5	1	4	3	3	0.05	1.5	0.98	Normal
Emotional Stability	3.0	0.5	1	4	3	3	0.05	1.5	0.98	Normal
Self-Esteem	3.5	0.5	1	4	3	3	0.05	1.5	0.98	Normal

Physician
ExamplesPatient
Search
Chief Complaint
Chart Note
Problem List**MD Education**
Patient Education
Help**Patient • MD Education**

The purpose of the MD Education page is to contain links to physician-oriented, peer-reviewed educational material specific to the needs of the current patient.

Patient**Name:** Stuart, Mary
Date: January 7, 2000**Problem:** Osteoarthritis of the Hip**Information:** Osteoarthritis of the Hip - Late Middle Age Adult**Questions For The Physician**

These questions have been given to the patient before the visit in an effort to focus the visit.

1. Do I have osteoarthritis of the hip as I have been told?

This question allows you to confirm or question the diagnosis with which the patient comes to your office.

2. Is my weight a problem?

Obese or overweight patients do put a higher strain on the hip and probably worsen the arthritis. Weight control can help the pain significantly and also improves long-term outcomes if the patient requires surgery.

3. Are there exercises I should do that will help?

Yes. In mild to moderate OA of the hip exercises are of benefit. Both exercises for the hip itself and low-impact aerobic exercises are of benefit. Hip exercises include flexibility and abductor strengthening - both of which you can demonstrate. Alternatively, you can have the patient get 1-2 visits with physical therapy for instructions in a home-exercise program. Low-impact aerobics such as swimming, water exercises and biking are well tolerated by the hip with mild to moderate OA.

4. What activity should I avoid?

FIG. 18A

aerobic classes should probably be avoided. Long-distance fitness walking is also likely to be a problem. A walking stick or cane for hikes is also very helpful.

5. Do I need a total hip replacement?

Total hip replacement can give dramatic relief to people with advanced arthritis of the hip. Most patients with OA of the hip will not need a hip replacement. Patients should be quite painful and limited in their activities in order to qualify for a hip replacement.

Treatment Considerations

1. Most patients can be managed non-operatively - the components of general management are as follows:
 - a. Pain control
 - i. Tylenol / acetaminophen is first-line care because of good pain relief and low side effects.
 - ii. Anti-inflammatory agents are second line - can be effective but with higher side effects ratios than acetaminophen.
 - iii. Other pain relievers such as codeine, propoxyphene. Have limited use for short periods of time because of possible side effects and habituation.
 - b. Weight control
 - i. Overweight patients put added stress on the hip in activities of daily living and in attempts at some forms of aerobic conditioning.
 - c. Cane (usually in opposite hand)
 - i. Effectively relieves a surprising amount of weight from the hip but is difficult to talk patients into.
 - d. Exercises for the hip - can be taught in 1-2 physical therapy visits or by the physician
 - i. Flexibility
 - ii. Abductor strengthening
 - e. Aerobic exercise which needs to be low impact
 - i. Swimming
 - ii. Water exercise
 - iii. Bike
 - iv. Low-impact aerobics
 - f. Avoidance of
 - i. High-impact activities such as running

P16.18B

2. Although most patients will not need an operation for osteoarthritis of the hip, if the pain is significant after appropriate conservative care, an operation may be helpful for the patient. Orthopedic referral is appropriate for consideration of:

- a. Total hip replacement
- b. Osteotomy in selected cases

References

This section provides links to additional reference material you may find useful.

National Library of Medicine

- Effectiveness of exercise therapy in patients with osteoarthritis of the hip or knee: a systematic review of randomized clinical trials.
van Baar ME, Assendelft WJ, Dekker J, Oostendorp RA, Bijlsma JW
- Surgical management of osteoarthritis.
Di Cesare PE

National Guideline Clearinghouse

- Guidelines for the medical management of osteoarthritis. Part I. Osteoarthritis of the hip
[Release date: July 1995]
- Total hip replacement
[Release date: September 1995, reviewed 1998]

FIG. 18C

Clinical Interactions • Physician • Naxos Orthopedic Center

Physician: Euripides

Patient: Search

Chief Complaint: Chart Note

Problem List: MD Education

Patient Education: Help

Patient • Chart Note - Knee Pain

Patient

Name: Stuart, James
Date: January 7, 2000

Problem: Right Knee Pain

History

75 year old	Pain with walking	No warmth
Male	Pain with getting up	No arthritis
1 year duration	Swelling	No gout
Right knee pain	Loss of motion	No trauma
Medial	Previous menisectomy	
Dictation		

Past Medical History

Allergies	Penicillin
Medications	Digoxin 25mg daily Coumadin 5mg daily Tenormin
Medical Illnesses	Atrial fibrillation Hypertension
Previous Surgery	Tonsillectomy - age 10 Meniscus removal - age 30
Family History	Positive: Hypertension Nocturia Negative: Show
Social History	Marital history: Married Smoking: None Alcohol: None
Review of Systems	Positive: Headache Nocturia Negative: Show

Height: 5'10 Weight: 220

SF12

Vital Signs

Show

FIG. 19A

[illegible]

Physical Exam

Dictation _____

Assessment

Dictation _____

Plan

Dictation _____

[illegible]

FIG. 19B

Physician:
Euripides

Patient
Search
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MD Education
Patient Education

Help

Patient • Patient Education

The purpose of the Patient Education page is to allow you to choose suitable educational material for the patient given his or her current condition.

Patient

Name: Stuart, Mary
Date: April 23, 2000

Problem: Hip Pain

Introduction

You can choose one of the following introductions for the patient.

- ☐ Dear Mary Stuart. Here is some more information that I felt you would like to review on your problem of osteoarthritis of the hip. The web links shown are peer-reviewed and credentialed, so the information you receive is most likely legitimate, I suggest you look at several of the [osteoarthritis](#) articles.
- ☐ Dear Mary Stuart. We are not certain of the reason for your hip pain but a very likely cause is osteoarthritis of the hip. Here is some information that I feel will be helpful to you regarding osteoarthritis of the hip. The web links shown are peer-reviewed and credentialed, so the information you receive is most likely legitimate, I suggest you look at several of the [osteoarthritis](#) articles.

Post-Visit Summary

You can choose to send the following post-visit summary to the patient

☒ Send summary

Degenerative arthritis of the hip, also known as osteoarthritis, is the most common cause of arthritic hip pain. The result is a progressive wearing of the joint surface cartilage in the hip ball and socket joint. This process occurs to some degree in everyone throughout life. Most patients do not become significantly symptomatic until later in life, while some experience initial symptoms in middle age.

FIG. 20A

Currently, there are no known methods to reverse the process of degenerative arthritis. Fortunately, there are many ways to help slow the progression and markedly reduce the pain. Your doctor will suggest

methods of treatment that are suitable to your specific situation and lifestyle. Treatment recommendations will depend on the degree of arthritis determined by symptoms, physical examination, and x-rays of the hips.

Excess weight can increase your risk of degenerative arthritis. Being overweight places more stress across the hip joint and increases wear and tear. Watching your diet and participating in some form of regular exercise should help to optimize your weight and reduce hip pain. For some patients, weight loss will eliminate the pain completely.

We know that regular exercise is good for the heart, mind, and body. Exercise is also beneficial for your joints. High impact loading, such as with running, can actually increase the progression of ankle, hip, and knee arthritis. Bicycling, stationary cycling, and swimming are good examples of aerobic exercises that do not place excessive load on the hips. Walking for exercise is fine but does place a bit more strain on the hip joints when compared to cycling or swimming. The goal is to increase leg strength and mobility while minimizing the forces absorbed by the hip joints.

Your doctor may recommend medication for hip arthritis. Tylenol is often quite effective in the treatment of hip pain. Another common treatment is anti-inflammatory medication. An example is Advil. The anti-inflammatory class of medication acts in two ways:

1. To minimize the joint inflammation
2. To decrease the pain

Some of these new medications are available "over the counter", while others require prescription.

The anti-inflammatory medicine can occasionally cause unwanted side effects such as stomach pain or intestinal bleeding. You should discontinue the medication and notify your doctor if you experience stomach pain or black bowel movements.

In more severe cases of hip arthritis you may wish to consider the use of a cane to reduce the load on the hip. The cane is held on the side **opposite** of the painful hip. Most patients with hip arthritis will **never** need a hip replacement operation. Some patients will eventually develop complete wearing down of the hip joint and decide to replace the hip. If your hip arthritis is severe, your doctor will discuss whether a hip replacement is a reasonable option. He will discuss the results of the procedure, the recovery time, the limitations, and the risks of the procedure. Patient satisfaction with hip replacement is generally excellent.

Educational Material

National Library of Medicine

☒ Osteoarthritis

F16.20B

Clinical Interactions • Patient • Naxos Orthopedic Center

Logoff | My Condition | Profile | Message Center | Medical Office

Patient:
Mary Stuart
Next Visit
Hip Pain
Summary
Education
Help

My Condition • Education

The information below provides a detailed description of the condition you have been diagnosed with. The description includes the likely causes, indications, potential treatments and the outcomes for your condition.

Introduction

Dear Mary Stuart. Here is some more information that I felt you would like to review on your problem of osteoarthritis of the hip. The web links shown are peer-reviewed and credentialed, so the information you receive is most likely legitimate, I suggest you look at several of the [osteoarthritis](#) articles.

Degenerative Arthritis Of The Hip

Degenerative arthritis of the hip, also known as osteoarthritis, is the most common cause of arthritic hip pain. The result is a progressive wearing of the joint surface cartilage in the hip ball and socket joint. This process occurs to some degree in everyone throughout life. Most patients do not become significantly symptomatic until later in life, while some experience initial symptoms in middle age.

Currently, there are no known methods to reverse the process of degenerative arthritis. Fortunately, there are many ways to help slow the progression and markedly reduce the pain. Your doctor will suggest methods of treatment that are suitable to your specific situation and lifestyle. Treatment recommendations will depend on the degree of arthritis determined by symptoms, physical examination, and x-rays of the hips.

Excess weight can increase your risk of degenerative arthritis. Being overweight places more stress across the hip joint and increases wear and tear. Watching your diet and participating in some form of regular exercise should help to optimize your weight and reduce hip pain. For some patients, weight loss will eliminate the pain completely.

We know that regular exercise is good for the heart, mind, and body. Exercise is also beneficial for your joints. High impact loading, such as with running, can actually increase the progression of ankle, hip, and knee arthritis. Bicycling, stationary cycling, and swimming are good examples of aerobic exercises that do not place excessive load on the hips. Walking for exercise is fine but does place a bit more strain on the hip joints when compared to cycling or swimming. The goal is to increase leg strength and mobility while minimizing the forces absorbed by the hip joints.

Your doctor may recommend medication for hip arthritis. Tylenol is often quite effective in the treatment of hip pain. Another common treatment is anti-inflammatory medication. An example is Advil. The anti-inflammatory class of medication acts in two ways:

- To minimize the joint inflammation
- 1 To minimize the joint inflammation

FIG.21A

- 1. To minimize the joint inflammation
- 2. To decrease the pain

Some of these new medications are available "over the counter", while others require prescription.

The anti-inflammatory medicine can occasionally cause unwanted side effects such as stomach pain or intestinal bleeding. You should discontinue the medication and notify your doctor if you experience stomach pain or black bowel movements.

In more severe cases of hip arthritis you may wish to consider the use of a cane to reduce the load on the hip. The cane is held on the side **opposite** of the painful hip. Most patients with hip arthritis will **never** need a hip replacement operation. Some patients will eventually develop complete wearing down of the hip joint and decide to replace the hip. If your hip arthritis is severe, your doctor will discuss whether a hip replacement is a reasonable option. He will discuss the results of the procedure, the recovery time, the limitations, and the risks of the procedure. Patient satisfaction with hip replacement is generally excellent.

Educational Material

The following are links to relevant peer-reviewed material on the web.

National Library of Medicine

Osteoarthritis

F16.21B

Downloaded from www.naxosortho.com

Clinical Interactions • Physician • Naxos Orthopedic Center

[Logoff](#) | [Patient](#) | [Roster](#) | [Message Center](#)

Physician:
Euripides

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MD Education
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Printable
Help

Patient • Chart Note - Hip Pain

The purpose of the Chart Note page is to provide a chart note that can be printed and entered directly into the patient's chart.

Patient

Name: Stuart, Mary
Visit Date: April 23, 2000

Problem: Hip Pain

History Of Present Illness

60 year old - woman - 4 month history - left hip pain - no injury - onset over 2-3 weeks - pain present most of the time - not work related

Symptoms

Patient has: Anterior hip and groin pain - buckling, instability feeling, stiffness in hip - limp - night pain
Difficulty with: up stairs, getting up from chair, getting in and out of car running, putting on socks or shoes, cutting toenails

Denies: Back pain, sacroiliac pain, knee pain, popping or snapping of the hip, catching or locking of the hip, numbness in same leg

Associated conditions

Patient has: shoulder problems, wrist / hand problems, history of osteoarthritis

Denies: Spine problems, elbow problems, knee problems, ankle problems, rheumatoid arthritis, post-traumatic arthritis, avascular necrosis, Perthes disease, slipped epiphysis, gout, pseudo-gout, collagen, vascular disease, hip infections, hip dysplasia, traumatic dislocation of hip, hip fracture, pelvic fracture

Previous diagnostic studies

None

Previous non-operative care

Oral medications

Has not had: Physical therapy, exercise program, chiropractic care, injections, acupuncture

Previous surgical procedures on hip

None

FIG. 22A

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Current treatment
Tylenol or equivalent, artritic or anti-inflammatory medications

Pain scale
7 of 10

Does not use cane

Past Medical History

Allergies	Penicillin Pollen	
Medications	Cardizen SR 120mg per day Motrin 600mg 3 times a day Synthroid 0.15mcg once a day	
Medical Illnesses	Hypertension Arthritis Thyroid disease	
Previous Surgery	Tonsillectomy - age 10 Breast biopsy - age 45	
OB History	Number of Children: 3 C-Section: No	
Family History	Positive: Heart disease Hypertension Cancer	Negative: Show
Social History	Marital history: Married Lives: With family Smoking: None Alcohol: None	
Review of Systems	Positive: Dizziness Difficulty Sleeping Need to urinate more than once at night Indigestion/Heartburn Joint Pain Joint Swelling Bone Pain	Negative: Show

Height: 5'4 Weight: 130

SF12
[Show](#)

Vital Signs

BP _____ Pulse _____ Resp. _____ Temp _____

Physical Exam

General Appearance & Mental Status
Healthy appearing patient in no acute distress. Mental status appears normal

F16.22B

Normal.

Normal Exam - [Show](#)

Skin

Intact, no rash, no lesions

Normal Exam - [Show](#)

Head & Neck

Without obvious trauma, non-tender, no masses, and no bruit.

Normal Exam - [Show](#)

Eyes

1.Pupils are equal, round, and react to light. Sclera and conjunctiva are clear. 2.Optic nerve appears normal, no retinal hemorrhages, no A-V nicking.

Normal Exam - [Show](#)

Ears

Tympanic membrane intact without fluid or hemorrhage. External canal clear.

Normal Exam - [Show](#)

Nose

Clear

Normal Exam - [Show](#)

Mouth

No lesions, no tenderness

Normal Exam - [Show](#)

Throat

Clear, no exudates, no tonsil swelling

Normal Exam - [Show](#)

Teeth

No obvious caries, no loose teeth, no tenderness

Normal Exam - [Show](#)

Chest

Non-tender to palpation, clear to percussion and auscultation without wheezes, rales, or rhonchi.

Normal Exam - [Show](#)

Breast

Non tender, no masses

Normal Exam - [Show](#)

Heart

Regular rhythm, S1 and S2 normal, no murmur, no JVD

Normal Exam - [Show](#)

Abdomen

Soft, non-tender, no masses, no hernias, normal bowel sounds, no bruits

Normal Exam - [Show](#)

Pelvic

Deferred (if a pelvic exam is done it will be described and will be integral to why the patient is there)

Normal Exam - [Show](#)

Rectal

Deferred

Normal Exam - [Show](#)

Back & Neck

Non tender, full range of motion, no deformity, non-tender to palpation

Normal Exam - [Show](#)

Neurological

F16.22C

Gait is normal, balance normal, reflexes symmetric, no clonus, sensation intact, motor strength full, speech intact
Normal Exam - Show

Extremities

1.Upper extremities without trauma, non-tender, full range of motion of shoulders, elbows, wrists and hands. Pulses full. No masses or lymphadenopathy. 2. Lower extremities and pelvis without trauma, non-tender, full range of motion of hips, knees, ankles, and feet. Pulses full. No masses or lymphadenopathy.
Normal Exam - Show

Assessment

Dictation _____

Plan

Dictation _____

FIG. 22D

FIG. 22D